Teaching medical translation: an easy job?

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*Medical translation is the most universal and oldest field
of scientific translation because of the homogeneous
ubiquity of the human body (the same in Montreal, Mombasa
and Manila) and the venerable history of medicine.*
Fischbach, 1986

1. Introduction

Before answering the question posed in the title, a preliminary issue has to be put forward and dealt with: who is likely to become a competent medical translator? By and large, translators fall into two categories of people: those with a medical background (medical students and physicians), and good translators genuinely interested in medicine. Both have advantages and drawbacks. Persons in the first category understand the subject matter but lack translation techniques. Those in the second must acquire specialized knowledge and therefore need more feedback from the medical community. Opinions in this matter diverge ((1) Gile 1986, (2) Lee-Jahnke 1998, (3) 2001, (4) 2004), and Gile (1), for example, believes that medical translation should be done only by medical doctors. But my own experience has shown that a good translator, i.e., one who masters the techniques of translation, research and documentation, will, by and large, produce a better translation.

As in other fields of specialized translation, where languages for special purposes (LSPs) play a major role, it is important to gain knowledge in the specialized field—domain knowledge—in order to attain expertise (5 Stolze 1999). The following reflections are the result of my own teaching experience, and include a discussion of some practical goals and useful tools in medical translation. They are meant to serve as a guideline for the training of medical translators.

2. What makes medical translation so special? Some historical aspects

Medicine has always held a special position because it deals with human beings, i.e., with persons—their personality, their body and their life. This is probably the reason why medical translation belongs to one of the oldest fields of translation. Alluding to the historical importance of medical translation, Van Hoof (6) had this to say:

> Avec la traduction religieuse, la traduction médicale est probablement une des branches les plus anciennes de l'activité traduisante: les souffrances de l'âme et du corps ont toujours été au centre des préoccupations de l'homme. Le plus ancien des documents serait le Corpus Hippocraticum, une compilation des enseignements d'Hippocrate faite au IIe siècle avant notre ère par des médecins grecs d'Alexandrie.

The above is true for many cultures, whether we go to Asia, the Arab countries or Europe. This is probably the reason why we deal with medical translation in a special way, and why this field inspires so much awe. Thus the importance of medical translation is why opinions clearly diverge regarding the question raised above: *who* can do medical translations?

The extensive history and recent practical importance of medical translation, combined with the fascination medicine has always held in all cultures, are powerful incentives for would-be translators. Why then is the subject worthy of discussion? Medical translation has always been of major importance within the field of translation, because a large number of texts are translated and hence this area represents a large share of the market.

3. Preliminaries for medical translations: Some theory

To start with, future professional translators should be taught, in general terms, the major translation theories applicable to scientific texts. For this aim, the text-typology of scientific texts developed by Göpferich (7) is most helpful. Another theory applicable to scientific texts is the *skopos* theory of Reiss and Vermeer (8), which implies that any translation must first of all fulfill the objective of the original text, regardless of how this goal is approached. We learn from these authors that the text should be translated in a *receiver-specific* way. Hence it is not only a different language or culture which has to be taken into consideration, but also the different degree or level of knowledge of the recipient.

This theory indicates that there may be several *skopoi* for the same text, thereby requiring that a hierarchy of different objectives be established. Thus it cannot be ruled out that the aim of the target text might differ from the aim of the original source text (Reiss and Vermeer 8). For Reiss and Vermeer, it is the recipient who must be the primary consideration. But aside from this, one must bear in mind the type of text, the genre and the different conventions of the target text ((5) Stolze, 1999 and (9) Vandaele 2001).[a]

As far as the contents are concerned, nonsocioculturally-defined information valid for all languages and cultural backgrounds must be distinguished from socioculturally-determined information of interest only to certain cultural circles, and which differs in content depending on the cultural circle.[b] On the language level we distinguish between conventions which are not linked to the genre of the text[c] and conventions which facilitate text differentiation.

It must be made clear that scientific texts should be defined as specimens of pragmatic, semantic and syntactic super-structures which, on the basis of corresponding text-external and text-internal features, can be assigned to conventional

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text genres whose patterns and communicative norms have evolved by tradition the course of professional communication. Hence it is essential to point out at the very outset of training what the targets are, what difficulties have to be overcome, and what training models should be used to link theory and practice.

To achieve proficiency in the field of medical translation, we therefore suggest the following:

a. An interest in this special field.
b. A mastery of special reading skills for medical texts to identify their difficulties.
c. Familiarity with the general difficulties in the realm of medicine and the ability to tackle them appropriately with LSP-based approaches.
d. A mastery of research and documentation.

3.1. Reading the text: From step one to step four

In order to translate a text it has to be fully understood, which for an unfamiliar field requires repeated reading. Hence the four steps suggested below:

First reading: Examine the macrostructure of the text

The translator must understand the contents of the text as a whole and consider two aspects; the general aspect of the contents and its specific aspect. At this stage translators try to analyse whether the text is complete, what its context is, who the author is and who the addressee is, when it was written and where it was published.

With regard to the formal aspects, translators need to see how long the different paragraphs are, whether the titles and subtitles—especially in vulgarized texts—are adequate, and whether there are footnotes, tables, graphs, cross-references, etc. Training should also mention elements of the bibliography or reference list, as sometimes the client asks for this.

Second reading

This phase focuses on unknown terms, connecting words and collocations ((10) Delisle et al 1999). At this stage the logic of the text should be clear to the translator, and he or she should reflect on whether or not this same logical structure is to be kept for the target text as well. Pertinent documentation and parallel texts ought to be at hand from this stage on.

Third reading

This reading serves to analyse the microstructure and isotopy of the text, and to see whether each sentence adds to a logical structure for the target audience and the target language. Of major importance, of course, as in any kind of writing, is the first sentence, the *incipit*. Translators then need to analyse whether the logic of the text is consistent with the succession of paragraphs. This, especially in the medical field, is sometimes very difficult because the structure of the languages differs substantially. In this case the translator needs to act as an author and handle the text according to the structure that readers in the target language would expect to see.

Fourth reading

The translation has been completed and "quality control" should take place. This means a thorough comparison of source and target texts, first by the translator, and always with the pertinent documentation at hand. Second, an expert reader should revise the text.[d]

3.2. General pitfalls in medical translation

In university-level training we try to make the difficulties that can be encountered in medical translation clear from the beginning. Some of them are listed below.

Terminology

In many cases medical terms originate from Greek and Latin, a fact which reflects the history of medicine. Physicians in Ancient Greece or Rome communicated with their community in their native language. Medieval physicians used Latin as a means of international communication, and Latin remained the language of medicine well into the 18th century. Later on there were attempts to vulgarize texts,[e] but by and large, Latin remained the standard of the professional elite.

Considering the fact that not all prospective translators have learned Greek and Latin, steps to familiarize the student with these terms are helpful. To improve comprehension, it is useful to first subdivide all words into prefix[f] and suffix in order to better understand the medical process described. Repeated exercises will make this a routine procedure for non-experts. Additionally, parallel texts, documentation from the client, and the use of new documentary resources (Lee-Jahnke (11)) now available, are essential to acquire and increase specialist vocabularies.

Since medical translation is based on specific cognitive knowledge which is mainly concerned with information, special care is needed when two or more fields overlap. The terms can having different meanings, making it more difficult for the translator to understand the text. This topic, which cannot easily be outlined although it would be an interesting point of research for translation studies, is the subject of various surveys (Jammal 1990 (12)).

Acronyms

Medical texts are known for numerous acronyms, which can be divided into two major groups: general and author-specific. General acronyms are readily found in the specialist literature (Spranger 1990 (13)). Author-specific acronyms are very often complicated to understand unless explained by the author. These difficulties should, if possible, be dealt with by the authors themselves. Otherwise, the clients should be consulted and their attention drawn to this potential pitfall, especially if the text contains author-specific neologisms.

If the author has written his article according to the IMRAD system (Introduction, Materials or Methods, Results, and Discussion), it is in most cases easier to understand the contents. Translation students need to learn that sometimes paraphrases are necessary to render in the target language what the source language meant to express. In these cases the

paraphrase should make reference to the acronym used in the original text. Alternatively, a footnote may explain that this is a new coinage. In such cases interdisciplinary work has shown to be most helpful.

Eponyms

According to the typology developed by Van Hoof (6), three types of eponyms are distinguishable:

a. identical in source language and target language,
b. different in source language and target language,
c. cases where there is no equivalent eponym in either source language or target language.

Eponyms are proper names used to designate syndromes, illnesses, research-related matters and devices. Because proper names usually need no translation, one is at first not aware of the difficulties. However, a syndrome (for example) may have been discovered simultaneously in various countries by different people and may therefore be named after the person who discovered it in different locations. It is essential that this fact is pointed out to students so that they can document the different eponyms in use.

English as lingua franca?

The English language is certainly pre-eminent in science. A publication must, if it was not written in English, bear at least an abstract in English. Very often we find many English terms in new technical fields. The field of medicine also contains English expressions that are taken up by different languages, as they provide a precise designation of a complex notion (for example, *compliance* or *spin)*. The English terms should be maintained in certain cases as they are easier for the experts to understand.

Medical phraseology

Because phraseology concerns the description of concrete phenomena, the difficulty in this context concerns extralinguistic factors such as the type of text (see Gross and Mathieu-Colas, 2001 (14), for further reading). Certain "stereotyped" style patterns are not to be translated at all, a pitfall which occurs quite frequently. One example of this situation is the following sentence:

Do not stop or change dosage without consulting your doctor.

Die Dosierung ist ohne ärztliche Beratung weder zu unterbrechen noch abzusetzen.

3.3. Research and documentation

Today the research and documentation procedure has changed because we have easy access to the Internet and to electronic dictionaries, and therefore are no longer dependant on the traditional encyclopaedia (see Vandaele 2001 (15) for en extensive set of references). On one hand this is helpful; however, on the other hand we are spoiled for choice. First

of all the essential must be separated from the nonessential, which can be difficult for a nonspecialist at first. In most cases it is necessary to narrow down facts at the beginning. The following example shows how to undertake a professional, efficient search in MEDLINE.

The search can be started from key words in the title, an author's name or affiliation, or elements of the content of the study. This is done with the help of a thesaurus for medical terms: the MeSH (Medical Subject Headings) Index (Lee-Jahnke, 2001 (2)).

Assuming we are looking for an article regarding *follow-up* studies in the *British Medical Journal*, the following three steps are necessary:

• If making selections (e.g. subheadings, etc.) use the *Send to search Box* feature to see PubMed records with those specifications.
• Select *PubMed* under the links menu to retrieve all records for the MeSH Term.
• Select *NLM MeSH Browser* under the Links menu for additional information. Of course the search can also be narrowed by year, leading to a further significant reduction.

These modern resources facilitate and enhance the work of translators, and of everyone involved in research and documentation.

4. Conclusions

The question posed at the beginning of this article can be answered to a certain extent: today training in medical translation has become easier because of improvements in theoretical knowledge, the systematic characterization of the pitfalls, and improved facilities for on-line research and documentation. Therefore training in medical translation has become better and more efficient. More translators can become active in this field provided that, in the case of freelance work, they regularly undergo further education in order to stay up-to-date.

Notes

[a] This is of particular importance in medical texts written by doctors for doctors.

[b] This is the case for many WHO publications which must communicate a medical message to many different cultures while respecting the taboos inherent in and specific to many cultures.

[c] The structure of German medical texts is rather complex compared to English, and texts are heavily laden with Latin and Greek terms. On the other hand, it may come as a surprise that a number of terms translated into German from Latin and Greek have become technical terms in German while retaining their every-day usage.

[d] It must be made clear to students that revision of the text by a third person is necessary, and is considered, even in the translation market, a must in order to guarantee quality.

[e] Recall the *Basler Rezepte* from the 8th century. Here the medical text was explained and annotated so that the therapeutic indications would be understood by a large number of persons.

f   For example, *brady*- indicates a slow process; *ectasia* indicates dilation.

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Annex

Internet websites containing parallel texts and terminology

Example: Subject *Cardiac Insufficiency:*

Medline: <www4.ncbi.nlm.nih.gov/entrez/query.fcgi>. This database contains over 11 million entries back to the year 1966, and updated on a daily basis. Full texts can be downloaded via the PubMed Journals Full Text links, although a subscription to the journal is necessary in most cases.

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<www.uige.ch/medecine/bibliotheque/>.
<www.acris-antibodies.com/pdf/news_ausgabe3_3.pdf>.
<www.schilddruesen-erkrankung.de/herzschwaeche/>.
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